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Communications.

THE FOOD AND THE TEETH.

Observations on the Inorganic constituents of the Food of Children, as connected with the Decay of the Teeth, and the Physical Constitution of Women in America.

By the late James Paul, M. D.,

Of Trenton, N. J.

(Continued from page 187.)

Returning then to our subject, you will observe by the analysis, that cow's milk differs from that of woman in the proportions of some of the constituents, that it abounds more in butter, but particularly in casein, or cheese; and on the other hand, that human milk abounds more in the saccharine principle, or sugar of milk. Now this points out a circumstance from which great benefit may be derived. It is of very frequent occurrence that infants are deprived of the natural nourishment of the mother, and diverse opinions are given relative to the food of infants by persons who really know very little about the matter; one recommends a milk diet, another that the infant must be fed on starch and sugar.

Now to enable the infant to receive a nourishment in every respect similar to the mother, the knowledge of the various proportions which we obtain by chemical analysis, enables us to rectify and produce milk very analogous to human milk from that of the cow, by diluting it with water in the proportion of about half as much again; that is to a pint of milk should be added half a pint of water that has been boiled, which will reduce the cheese principle to the proper proportion; add a small portion of cream to restore the proportion of butter, and then add sugar until the whole is distinctly sweetened, and we have a compound in every respect similar to the milk from the human breast.

To understand the subject of nutrition, allow me to explain to you, that food should, or must embody two great principles; one to nourish, the other to give heat to the body. And food, when consumed, is applied to one or the other of these purposes. Now, in the process of digestion, the constituents of the food are separated, and arranged in three classes.

1st. All that portion derived from animal food, eggs, the curd of milk, the gluten or adhesive portion of wheat and other grain, and whatever in animal or vegetable food can be rendered into *albumen*—of which the best example that can be offered in illustration is the *white of egg*, which is in reality nearly pure albumen—and the principle is therefore called *albuminous*.

2d. All that portion of the food derived from vegetables, starch, sugar, etc., that can be converted into *sugar* in the process of digestion. This principle is, therefore, called *saccharine*.

3d. All the fat, butter, oil, etc., which, when deprived of the other substances, is left in the state of *oil*, and therefore called *oleaginous*.

Now, of these three the *albuminous* is the *nutrient*, and the *saccharine* and *oleaginous* the *calorifacient*, or heat giving; and chemical analyses show that they vary in composition.

	Albumen.		Oleaginous.
	Eggs.	Wheat.	Mutton Fat.
Carbon	55.000	56.01	78.996
Hydrogen	7.073	7.23	11.700
Nitrogen	15.920	15.92	
Oxygen, Sulphur, Phosphorus	22.007	21.84	9.304

	Saccharine.			
	Starch, Arrow Root.	Sugar from Starch.	Sugar of Milk.	Cane Sugar.
Carbon	44.40	37.29	40.00	42.301
Hydrogen	6.18	6 34	6.61	6.384
Oxygen	49.42	55.87	52.93	51.315

You will observe that the albuminous or nutrient differs from the saccharine and oleaginous, in containing nitrogen, and sulphur and phosphorus, with carbon, hydrogen and oxygen, while the latter contains only carbon, hydrogen and oxygen—nitrogen being required in those compounds which give strength and formation to the frame.

Now the albuminous, or nutritive, being that portion which affords nourishment to the body, contains those constituents required in the first place for the formation and giving strength to the

different portions of the body, and when fully developed, of repairing the general waste continually going on in the system, whether from the usual wear and tear, fractured bones, or the ravages of disease. And the saccharine and oleaginous—the calorifacient or heat-making—to keep up a continual supply of fuel, as it were, that the body may be kept of a regular and proper temperature; for you are no doubt aware that there is a continual supply of carbon, or, in more simple language, of charcoal, required to keep up the natural temperature of the body; and what is not required for immediate use is stored away in the form of fat, to be called into action as occasion requires.

We have seen in the analysis of milk, that that fluid contains butter, cheese, and sugar; consequently we can understand how an infant can thrive so well upon it—the cheese or caseine* of the milk, containing the nitrogenized or nutrient principle, which together with the earths and salts contained in the milk, goes to form the bones, muscles and the different tissues of the body—the sugar, which we have seen by the analysis, contains a large quantity of carbon in its composition, going to keep up the temperature of the infant, while the butter, in the nature of fat, is stored away in a healthy infant, filling up every vacant interstice, causing a roundness and plumpness, the pride and joy of the happy parent.

Now let us mark the difference of the babe that has been denied a milk diet, and is doomed by ignorance to be fed on starch and sugar. You will recollect that these two substances were composed of carbon, hydrogen and oxygen only. By a process of digestion which I need not here enter into, such food is converted into sugar, the carbon of which becomes the fuel by which the temperature of the body is kept up—there being no principle in the food to give albumen, there is nothing taken into the stomach upon which the gastric fluid can expend its solvent powers; the infant is, therefore, much troubled with acid eructations, and the stomach becomes weak and irritable. The want of the nutritive constituent of the food, and the earths and salts, etc., necessary and essential for the formation of the bones and teeth, show a lamentable deficiency in the child's development, and there being no fatty matter to be laid up, the body is emaciated, the countenance is ghastly, the flesh and integuments hang soft and flabby over the bones, no absolute disease can be detected, the child is ravenous and hungry, and the unfortunate babe descends to the tomb a spectre and an object of the most pitiful description. This is no fancy sketch, but one too often met with in the ordinary walks of professional life. And why is it so? Simply because the composition of the human frame, the component parts of our food requisite to produce that frame, and the process of digestion and nutrition, are so little understood.

We now advance from infancy to childhood—and this is a period when the greatest attention is required in supplying nutriment to aid nature in the great work of developing the body. The child is now deprived of the maternal secretion, and dependent on food prepared for its use by the hand of man—perhaps living in a city, and deprived of pure and wholesome milk from the cow. And we know there is a vast disproportion in the quality of milk when the cow is country fed on the natural productions of the farm, and when city fed on slops and grain, the refuse of the brewery.

It is at this age that the great proportion of bony substance is deposited; those of the extremities are lengthened, become more compact and stronger, and the substance of the teeth is deposited in the cells of gelatinous tissue. How necessary is it, then, that this subject should receive the utmost attention of parents. It has hitherto been too much the custom to leave all this, as belonging entirely to nature—as a thing we had nothing to do with. We have been too much in the habit of considering that nature furnished her own materials, and man had nothing to do with her operation. The potter cannot fashion the bowl without the clay, neither can bone be formed without earth. No, my friends, nature must be supplied with the material, which, although offered in the most incongruous forms, she has the power of decomposing, selecting from, and supplying for the various purposes required; one portion, as we have already stated, to act as fuel in keeping up the temperature; another portion she selects to add to the flesh, the muscle, skin, and different tissues; and the earths which are held in solution, she carries away by vessels adapted for that purpose, and deposits them atom by atom, until they are so compressed, so strongly compacted together, as to become what we call *solid bone;* and all this so wonderfully wrought, that as we have seen, small tubes are left in the hard stony formations both of the bones and of

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	Analysis of Caseine from fresh milk.	Albuminous substances found in whey after coagulation with an acid.
Carbon	54.825	54.96
Hydrogen	7.153	7.15
Nitrogen	15.628	15.89
Oxygen, Sulphur,	22.394	21.73 / 0.36

the teeth, that nourishment may be supplied them, holding in solution the material of which they are composed, that the natural waste and decay may be replaced, and injuries repaired.

It is to this nutrition, and of the earthy matter of which the bones and teeth are composed, a deficiency of which is attended with results so deplorable, that I particularly wish to call your attention.

To what can we attribute the calamity which too often befalls the young? I allude to distorted spines, where the bones composing the spine, instead of forming a column, allowing the body to be erect and dignified, are zigzag in their course, causing one shoulder to bulge out, and the opposite side to bend or double upon itself. This deformity has been long understood to arise from a deficiency of *lime* in the composition of the bones of the vertebræ, allowing them to fall, press upon, and injure each other, destroying the beauty of the fabric, and the health and comfort of the individual.

Now let us take a glance at the inhabitants of two countries, natives of which are no strangers on this continent. I take them as examples, because the food of the *common people* of those countries, is well known to be of the most common kind. I allude to natives of Scotland and Ireland—the principal food of one being *oatmeal*, and of the other, *potatoes*. We have heard a great deal of the famishing poor of those countries, and particularly of the latter—of the misery and wretchedness seen in every hovel; and there cannot be a doubt that famine walked through the land, when the blight and rot despoiled them of their potato crop, on which, for so long a period, they depended as the great article of food. Now, allowing all this—allowing, in the *best seasons*, the chief article of subsistence has been potatoes for breakfast, dinner and supper; glad indeed many of them to get a little animal food once a week to dinner, or even far more seldom—I now ask, what number, in the thousands of emigrants from that country who yearly arrive at our ports, are there that show a constitution weak, fragile, and wanting in physical strength? Many, no doubt, arrive, worn down by disease and suffering, and in the last stage of debility; but let them recover from that state, and the robust frame and healthy constitution will be again developed; the bones are strong, the teeth undecayed, and the muscular energy only wanting opportunity to display itself;—in fact, when we wish to denote strength in woman, we use the familiar phrase, "strong as an Irish woman;" and all this from being reared on *potatoes*. But then, if we examine the analysis of the potatoes, we shall find contained in 100 parts of dry potatoes,—

Carbon	41.1
Hydrogen	5.8
Nitrogen, Oxygen,	45.1
Ashes	5.0

Here we see that potatoes not only contain the nutrient but the earthy constituents.*

But we have a stronger and more healthy race yet, from Scotland and the north of Ireland, who are generally descendants of the Scotch, and continue, in a great measure, the same means in rearing the young. Now, *a* principal, I will not say *the* principal food of the youth of Scotland, high and low, rich and poor, except in the larger cities, amongst those who class themselves as more refined and more civilized, but who number few in proportion, consists, for breakfast, at least, of oatmeal—that is, porridge and milk; and milk, potatoes, and wheaten, oaten, and peas bread, or *bannocks*, at other times of the day. Animal food amongst the poor is a rarity; a meat dinner on Sunday *only*, being common. Even, among the youth of the better class, butcher's meat, or animal food, is by no means a principal article of subsistence. And I would particularly remark that *Scotch oatmeal* (the oatmeal generally used throughout Scotland) is coarse, and contains much of the bran which invests the oat—containing, as it does, a large proportion of the earthy constituents required for the production of bone. Analysis of 100 parts of dried oats gives:

Carbon	50.7
Hydrogen	6.4
Oxygen	36.7
Nitrogen	2.2
Ashes	4.0

I may here casually remark, that the advantage to be derived from this wholesome food has not escaped the observation of her majesty, Queen Victoria, who appears in the multiplicity of her public duties, not to lose sight of the equally sacred duties of a mother—and we hear of her son, the heir to the crown of Great Britain, being as fond of his oatmeal porridge as the meanest peasant child in Scotland.

I rather doubt, if parents generally have given

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* According to a memorial presented to the French minister, on the proportions of nutriment of the means of living, by Dr. Glaser, we find potatoes taking no mean rank.

NUTRITIVE ELEMENTS.

100 lbs.	Wheat Bread contains	30 lbs.	
"	Flesh	" 21 lbs.	
"	Fresh Beans	" 80 lbs.	casein and starch.
"	Peas	" 83 lbs.	
"	Lentils	" 94 lbs.	
"	Potatoes	" 25 lbs.	albumen, starch, and sugar.
"	Carrots	" 14 lbs.	albumen with sugar.
"	Beets	" 8 lbs.	

to this subject the attention to which it is entitled. I trust, however, that those who have followed me thus far, may be impressed with its importance. We cannot shut our eyes to the complaint which so generally prevails, of decayed teeth—and a moment's reflection will call to mind the number of the young and beautiful who are prematurely hurried to the tomb, ere yet the bud has expanded into the full-developed flower. Nay, comparing the two countries, the statistics of life and death communicate to us also the important fact, that while the greatest mortality shows itself in England in infancy and childhood, on this side the Atlantic, it is found at a more mature age.

Neither has the tendency of the physical organization of woman on this continent to degenerate, escaped the observation of one of our greatest medical philosophers in this country,* who regards this retrogression as a national calamity, and impresses upon his students the importance of the subject, and the propriety of their attention in attempting to arrest it; and he particularly specifies the great object to be gained in the use of bran-bread, made from unbolted flour. On this head, I shall have more to say hereafter.

With these observations, let us now direct our attention to what can be offered in remedy of this evil.

We have already stated, that in no country in the world are children more beautiful or more lovely—healthy in complexion, quick, smart, and intelligent—active, sprightly, and playful in their disposition. Now, in the period from infancy until the child becomes mature—let us, at all events, say until thirteen or fourteen years, and even to a more advanced age—there is a continued growth—a continual deposition of organic and inorganic or earthy particles, which are required for the formation of bone, teeth, flesh, and every part of the human body. I have shown you that the essential ingredients for these several formations are all found in the milk of the mother; consequently, as long as the infant is deriving nourishment from the mother, she ought to partake of good, wholesome, nourishing food—that the blood, deriving these principles from the food, may be able to supply them in turn to the milk from which it is secreted. So long then, as the child is thus nourished, so long is it safe, and the rudiments or foundation of a robust frame is laid. And if we are to expect, in future life, the stalwart frame of man, or the enduring, firmly-knit, compact, and healthy physical constitution in woman, the organic and inorganic or earthy compounds of which that frame is composed must not be denied—Nature must be supplied, or Nature will fail.

It is not for me to dictate to any parent what shall be the food of his child—it is enough that I point out for their information, what may be required to give, what in common language is called "bone and sinew," to their offspring. It is necessary then that the food of children shall contain:

1st. Aliment, having the *calorifacient* or heat-sustaining principle. And this is contained in quite sufficient quantity in the usual food—in milk, wheaten bread, potatoes, arrow-root, Indian corn, (as mush, hominy, or corn-bread,) in most vegetable matter, and in sugar.

2d. Aliment containing the *nutrient* principle. And this is contained in animal food—the lean of beast, bird, and fish—in milk, eggs, wheat, rye, potatoes, beans, etc., etc.

And, 3d. Aliment containing the inorganic or earthy constituents—on which depends strength of frame, and from which are formed the bones and teeth of the individual. And these are contained in milk, eggs, animal food, and particularly in wheat, rye, oats, potatoes, etc.*

Of the inorganic constituents contained in wheat, (and the same may be said of the other

* Dr. Jackson, of Philadelphia.

* On this subject, I extract the following from Carpenter's Phisiology, p. 488: "These substances are contained, more or less abundantly, in most articles generally used as food; and where they are deficient, the animal suffers in consequence, if they are not supplied in any other way. Thus, common *salt* exists, in no inconsiderable quantity, in the flesh and fluids of animals, in milk, and in eggs; it is not so abundant, however, in plants; and the deficiency is usually supplied to herbivorous animals by some other means. *Phosphorus* exists also in the yolk and white of the egg, and in milk—and it abounds, not only in many animal substances used as food, but also (in the state of phosphate of lime or bone earth) in the seeds of many plants, especially the *grasses*. In smaller quantities, it is found in the ashes of almost every plant. *Sulphur* is derived alike from vegetable and animal substances. It exists in flesh, eggs, and milk; also in the azotized compounds of plants; and (in the form of sulphate of lime) in most of the river and spring-water that we drink. *Iron* is found in the yolk of egg, and in milk, as well as in animal flesh; it also exists in small quantities in most vegetable substances used as food by man—such as potatoes, cabbage, peas, cucumbers, mustard, etc. *Lime* is one of the most universally diffused of all mineral bodies; for there are few animal or vegetable substances in which it does not exist. It is most commonly taken in, among the higher animals, combined with phosphoric acid: in this state it exists largely in the seeds of most grasses, and especially in wheat flour. If it were not for their deficiency of *lime*, some of the leguminous seeds (peas) would be more nutritious than wheaten flour; the proportion of azotized matter they contain being greater. A considerable quantity of lime exists, in the state of carbonate and sulphate, in all hard water."

cereal grains,) I have already alluded to the benefit to be derived from using bread made of unbolted flour. On this subject, allow me to refer to the difference of flour having much of the bran remaining, and superfine flour, or that in general use throughout this country, and on which Prof. JOHNSTON has made the following curious but practical observations. Examining wheat and flour, as to the amount of the nutrient or muscular matter, the fat-forming principle, and the bone and saline material, contained in grain in different states, he found that

		Muscular Mat.	Fat Prin.	Bone & Sal.
In 1000 lbs	of whole grain.....	156 lbs.	25 lbs.	170 lbs.
" "	fine flour.....	130 "	20 "	60 "
" "	bran.....	.....	60 "	700 "

Taking the three substances together, according to Prof. Johnston, of a thousand pounds, the three substances contain, of the ingredients mentioned,—

	Whole Grain.	Fine Flour.
Of muscular matter.....	156 lbs.	130 lbs.
Of bone material.....	170 "	60 "
Of fat.....	28 "	20 "
	354 lbs.	210 lbs.

Accordingly, the whole grain is one-half more nutritious than fine flour.* It also shows the very great proportion of *bone material*,—that is, *earthy constituents*,—contained in the bran: no less than 700, out of a thousand parts, or a *little more than two-thirds* of the whole. Now, by reference to the same work, we find, in a communication from a Mr. BENTZ, the difference in weight of a barrel of flour, without the bran, and when only the outer coating of the wheat is taken off. He says, "The weight of the bran or outer coating would, therefore, in the common superfine flour, constitute the *offal*, weighing only 5½ lbs. to the barrel of flour, whilst the ordinary weight of offal is from 65 to 70 lbs. to each barrel of flour; showing a gain of from 59¾ to 65 lbs. of wheat in every barrel of flour." Now, if we estimate the earthy constituents to be two-thirds of the offal or bran, we must consider that there is an actual loss of these important constituents, which might be reserved, in every barrel of flour, of 40 lbs.

Again, if we estimate, (according to the average of the consumption of flour to the amount of population, as one barrel to each individual,) that every child shall consume annually only half a barrel of flour, then we find, that by the use of the superfine flour, as commonly used in families, the child is deprived yearly of twenty lbs. of those earthy substances which are required to form the bones and the teeth. When we speak of a child consuming half a barrel of flour annually, it appears a large quantity; but when we reduce the same to a daily allowance, we find that it is little more than 4 oz. or 4¼ oz.; and every parent must know that this would be a very small amount to limit children. Yet we see how large a quantity of the bony material would be added, if unbolted flour was used instead of the present superfine flour. I may here add, that the oatmeal used in Scotland, already referred to, contains the bran or inorganic constituents, while the oatmeal used in England is deprived of it. Now this is a great loss of the most valuable constituents in only one of the principal articles of the food of children; and if we allude to another article, which is largely used on this continent,—I mean Indian corn,—(and I may also add the fat of meat, both of which, children, if allowed, will partake of very freely,) we shall find that both of these abound more in the calorifacient, or heat-sustaining principle, and for the deposition of fat, than the nutrient; and that they are quite deficient of the earthy material, *of lime*—that material on which so much depends the proper structure of the teeth. Analysis of Indian corn shows the following composition—as taken from Mr. SALISBURY's prize essay—read at the New York Agricultural Society, for 1849:

Whole kernel.

Starch	50.64
Sugar and Extractive	7.46
Sugar	1.50
Fibre	6.28
Matter separated from Fibre	0 05
Albumen	8.64
Caseine	1.70
Gluten	4.56
Oil	4.00
Dextrine or Gum	4.84
Water	10.22
	99.89

Ash of the kernel constituting about two per cent.

Carbonic acid	a trace.
Silicic "	1.450
Sulphuric "	0.206
Phosphoric acid	50.955
Phosphate of Iron	4.355
Lime	0.150
Magnesia	16.530
Potash	8.286
Soda	10.908
Chloride of Soda	0.249
Organic acid	3.400
	97.000

This is a most elaborate analysis—far more minute than any analysis we have had of any of the articles of food—in fact, more minute than satisfactory; for the analysis of the whole kernel does not exhibit any amount of inorganic constituent; and when the whole was converted into ashes, we find that the *lime* only amounts to *the one-sixth of one part* in a hundred. Now, on inquiry, I find, on the authority of a very intelligent miller of this city, that in grinding corn, the

* Patent Office Report, 1847, p. 116.

bran, or thin skin of the grain, is detained in forming it into corn-meal; consequently, it is deprived of even that portion more particularly containing the earthy constituents. This gentleman in conversation mentioned an important fact, relative to this deficiency of lime in corn. To the best of my recollection, he observed, "This stands to reason; for, ten years ago, all the lower part of Jersey grew excellent corn, but would not grow wheat; but since the introduction of *lime* as a manure, they have raised considerable wheat crops." Now the fact is, it is not the habit or food of this plant, even had *lime* been in the earth; and magnesia and the saline manures are recommmended to the agriculturist as best suited for its proper development.

It is generally looked upon as invidious, and one is more likely to incur odium, than to receive credit for saying one word against a food which stands so high in public estimation, and is so universally used over this continent. Yet it must not, for one moment, be supposed that I condemn the use of Indian corn, in its various forms of mush, hominy, bread, or pudding, as an article of diet: far from it. But containing, as it does, a large proportion of starch and fatty matter, rather a small proportion of the nutrient principle, and quite a deficiency of the inorganic or earthy constituents, I consider it as valuable, as a light diet, for heat-sustaining purposes only, and therefore a desirable adjunct *to other food*, containing more nutriment and a due proportion of the earthy constituents.

As an example or illustration of the want of the nutrient principle in corn or corn-meal, I may here allude to the effects I have seen in the West Indies; where, in a dearth of the ordinary provisions on which prisoners were fed, corn-meal was substituted; corn-meal and salted herrings, fish, etc., constituting their food. Now the effect was, that all the prisoners lost their natural strength; at the same time, they became fat and bloated, inclining to dropsy: and this was not the effect of incarceration; for the prisoners were engaged in road-making, trimming fences, etc.; consequently, in a healthy and exhilarating employment.

In reference to our domesticated animals, it may be asked, Why is corn so useful, as an article of food, to animals generally—horses, hogs, sheep, etc.? I have already shown that the overplus of the calorifacient food, after what may be required for sustaining the temperature, is stored away in the form of fat. Now, if we instance the horse: corn is generally, if not always, given as an adjunct to his more usual food, hay. And we find by analysis, that grass or hay contains not only the nutrient principle, but the inorganic constituents required in the formation of bone, etc.

One hundred parts of dry hay contain—

Carbon	45.3
Hydrogen	5.0
Oxygen	38.7
Nitrogen,*	1.5
Ashes,†	9.0
	100

Thus, the hay gives to the animal strength in bone and muscle, while the corn supplies additional heat-sustaining properties, and lays by, in the form of fat, the overplus as a reserve. The harder the horse is worked, the more corn he can bear; the great proportion of the carbon being carried off by the lungs, and the hydrogen and oxygen, as water, in exhalation and perspiration. But if the same quantity is given to a horse at rest, it overloads him with fat, which, in his case, accumulates more internally, or around the internal organs, and will, in course of time, induce disease; while in the pig, under similar circumstances, the fat is laid on externally, if I may so speak, giving the rich fat pork of our markets. And here I would again remark, that no farmer would consider it necessary or essential to give corn to a young colt or horse, until required to work; nay, so careful is nature, in appropriating just so much and no more of any constituent that may be required, that the food of the young horse should be more nutritious than heat-sustaining; and that there shall be no superfluity to store away fat, we find by analysis, that the milk of the mare has little or no butter, in fact only traces of it, in its composition.‡ What a lesson in the animal economy is here given, and what a practical illustration of the requirements of the young of that and other animals!

Again, it may be contended, that among the beautiful children we see on every hand, there is no want of those who are fat and hearty. It is not *fat* we want—it is bone and muscle—with so much fat only as shall give firmness to the flesh and plumpness to the figure. Fat, although it enters intimately into union with the other component parts of bone and muscle, cannot be transformed either into the inorganic constituents of bone or teeth, or into muscular fibre; these must be contained in the food consumed, in the first place, and thence transferred to the blood.

* Fifteen pounds of such hay, containing oz. 3.095 of nitrogen.
† These ashes having a good proportion of lime.

‡ ANALYSIS OF MARE'S MILK.

Water	896.3
Butter	Traces.
Caseine	16.2
Sugar of Milk, Extractive Matters, and Fixed Salts	87.5
	1000.

How necessary, then—how important it is—if we expect to give strength and vigor to the constitution, that the food, in the first years of infancy and childhood, when the formative process is going on, should receive some further attention than has hitherto been given to it; and if our youth—if our young females have hitherto been deprived of the necessary constituents for the full development of every portion of the body—can we wonder that a woman should be the delicate and fragile being she is, or that by the decay which assails the teeth in early life, she should be deprived of an ornament of so much value? If this state of things can be altered—if the physical constitution of woman in America can be saved from further degeneracy—a purpose may be effected, of consequence even in a national point of view; for it is to the healthy and vigorous constitution of woman that we must look for a race of hardy, vigorous and enterprising freemen.

In conclusion, I would briefly state, that this is a matter in which professional aid can avail little; it lies at the door, and must be the work of parents generally. It is for them to understand the great value to be attached to the food on which their children subsist—that it shall be wholesome and nutritious, and abounding in the earthy compounds so absolutely necessary to their proper development. If the chief articles of food have hitherto consisted of compounds made of superfine flour, corn-meal, and the fat of meat, let there be substituted in their stead, bran-bread, milk, eggs, the lean of meat, and potatoes; let more attention be given to the nutrient quality of the food;—let there be no deficiency of those articles containing the earthy material, that the bones and teeth shall not be deficient in those constituents so necessary in their composition and structure; and I should be inclined to hope that the evils which now exist will be lessened, and the physical organization of succeeding generations be equal to that of any nation upon earth.

TENACITY OF HUMAN LIFE AS SEEN IN CASES OF GUNSHOT INJURIES.

By T. L. Leavitt, M.D., A.A.S., U.S.A

(Continued from page 142.)

Case 6. Wm. Holland, private, Co. I, 6th N. C., æt. 45 years, was wounded and taken prisoner at Petersburg, Va., June 1st, 1864. The ball, from a minnie rifle, entering just below the tubercle of the left tibia, fracturing but not splintering the bone, and making its exit at inner side of leg, on horizontal line with point of entrance, the fibula escaping injury. Admitted to Lincoln Hospital June 10th, 1864. The whole leg in an erysipelatous condition.

June 20. Complains of sharp lancinating pains below the wound of entrance, slight distension of skin noticed along the spine of tibia, with some inflammation. The pus is probably burrowing beneath the periosteum. Incised freely to the bone, giving free exit to a sanious offensive pus, and great relief to the patient. Placed the fracture-box at a slight elevation, to counteract the tendency of the pus to gravitate, and in time implicate the whole length of the bone.

July 3d. Incised three inches below former opening, found bone necrosed, removed large spiculæ. Treatment tonic, stimulating, and supporting.

July 17. Gangrene in the ward; doing badly. Used bromine and fermenting poultice.

July 22. Looking better, profuse suppuration.

July 27. Wound looks healthy, granulations springing up along the whole track.

July 30. Cicatrization commencing nicely.

Aug. 2. Gangrene again in the ward. Weather oppressively warm, thermometer 100° Fahr., in the shade. Wound sloughing with great rapidity, implicating the newly-formed cicatricial tissue, and extending deeply beneath the bone.

Aug. 3. A hæmorrhage took place this morning, from some of the muscular branches probably, and was readily controlled; a tourniquet was placed in position over the femoral artery, in order to arrest any bleeding that might at any moment take place.

Aug. 4. Another hæmorrhage occurred during the night, which, however, was severe, the medical officer of the day being occupied with a similar case, and the tourniquet being misapplied by the night-nurse before my arrival. A consultation was called, and amputation, as a forlorn hope, decided upon, the strength of the patient failing rapidly. After excessive stimulation, he was thought able to undergo the operation. The knee-joint being considerably diseased, I performed the simple circular amputation at the lower third of the femur; no appreciable blood was lost, and, after arriving at the ward, the patient rallied, but only for a short time, when he sank and died before sunset. The tibia was extensively honey-combed, although an attempt at re-union had been partially successful.

If this man could have been removed at an early date to a more healthful atmosphere, I have no doubt that he would have ultimately recovered, so great were his powers of endurance and recuperation, and so tenacious his grasp upon life.

Case 7. Wm. P. Bernard, æt. 22 years, private, Co. A, 44th Ga., received a gunshot wound in left scapula, ball penetrating the thoracic cavity, and injuring the lung. Patient states that he was lying down in the skirmish line of battle when wounded. Emphysema exists over left side of trunk, and partially in front. Complains of severe pain caused by breathing, but slight dyspnœa. Satisfactory auscultation difficult, on account of the extent of the emphysema. Where this does not exist, great dulness on percussion, and total absence of all respiratory sounds posteriorly; anteriorly, as far as fifth rib, lung appears uninjured; below this, however, great dulness and absence of any respiratory sounds.

July 8. Great dyspnœa, heart appears displaced to the right of median line, from the excessive effusion that is increasing in the left thorax; its action labored and hurried. Base of right lung, respiration feeble and dull on percussion. Blisters, wet and dry cups, fail to relieve the oppression, but lessen pain. Bowels regular and in good condition. Appetite tolerably fair. Cough very troublesome, expectorates frothy mucus, with occasional clots of blood.

July 20. Patient becoming very much jaundiced, liver much enlarged. Clayey stools.

July 21. About 4 o'clock this morning, a frightful hæmorrhage took place, the blood gushing from nostrils and mouth, syncope soon following, when the hæmorrhage stopped of itself.

July 22. Perfect rest imposed, and the use of table salt prevented any serious return of the bleeding until this evening, when another profuse hæmorrhage occurred. The patient gradually failing until half past eleven o'clock, when death ended his sufferings.

The autopsy revealed the course of the ball, which entered at about the middle of the supraspinous fossa of the left scapula, fracturing also the fifth rib, passing downward and inward through the lower lobe of the left lung, diaphragm, and left lobe of the liver, and lodging in the head of the pancreas.

The lower lobe of the right lung and the lower part of the superior lobe were found in a state of red hepatization. Left lung completely carnified, large effusion of blood and lymph in cavity. Heart normal, but much displaced, its chambers perfectly empty. Pericardium covered with effused and partially organized lymph. Liver greatly congested and enlarged, weighing 87 ounces; the left lobe decomposing rapidly. Gall-bladder was filled with a dark purple substance, exceedingly tough and inspissated, of about one ounce in weight. Diaphragm, in locality of wound, softened and surrounded by a purulent deposit. Stomach and intestines normal.

Life was here prolonged for ten days with a fearful laceration of vital organs, and injury of that most important muscle of respiration, the diaphragm, causing agonizing pain at every breath; which the poor fellow described as of a red hot knife plunging through and through him.

Editorial Department.

Periscope.

Ligature of the Iliac Artery.

A case of aneurism is described in the *Dublin Medical Press*, having occurred in the city of Dublin Hospital, under the care of Professor Wm. Hargrave, in which ligation of the left common iliac artery was resorted to. *Per se* the operation was successful, as the artery was entirely and permanently occluded, without the following of secondary hemorrhage. But the patient died from exhaustion, the result of pelvic abscesses and hæmorrhage established in the aneurismal sac through collateral circulation.

Without going into a history of the case we give the account of the operation and of the autopsy.

Operation, April 29th, 1865. Patient well under the influence of chloroform before and during the operation. An incision was made from the point of the last rib, slightly curving downward to Poupart's ligament, mid-distance between the anterior superior spine of the ilium and symphisis pubis about eight inches long through the superficial fascia; the three broad muscles were next carefully divided from below upward and from angle to angle of the incision. Any hæmorrhage was venous with the exception of the internal branch of the circumflex ilii vessel which was sliced. A ligature was tied on each side of the opening and the vessel divided. The transversalis facia was perfectly *cleansed* and *free from any blood*; it was very strong. The smallest possible portion of it was pinched up in the forceps, and found by its transparency to be free of the peritoneum, which was divided on the director for the entire extent of the wound, the peritoneum was freely exposed and the color seen beneath it. The peritoneum was removed from the iliac fossa to the mesial line of the body with the greatest facility, with more ease than in the dead subject; it carried with it firmly adherent, the ureter. The aneurismal sac, occupying the external iliac artery remained almost in a state of repose, *i.e.* did not project into the wound, as has occurred in similar operations. It was well defined at the cardiac or proximal end, and corroborated what was ascertained before the operation, of dipping deep into the pelvic cavity, perhaps compressing the external

iliac vein, so accounting for the great œdema of the entire of the left limb. The common iliac artery was now exposed and visible to the naked eye, the vein was not equally apparent. The separation between these vessels was easily effected with the finger nail, and a hempen ligature passed under the artery from within outward. On compressing it on the aneurismal needle, all pulsation in the aneurism completely ceased, it *becoming so flat as to have disappeared.* The genito-crural nerve was embraced by the ligature in the first instance, from *which it was excluded.* The extreme sensitiveness of this nerve was evident from the fact that when very gently touched, to free it from the ligature, the patient was roused to perfect consciousness from a deep anæsthetic sleep. This occurred twice.

The artery was tied about half or three quarters of an inch above its division into the external and internal iliacs.

The patient died July 11th, seventy-third day after the operation.

Post mortem examination, (Drs. TUFNELL and CROLY.) An incision made from umbilicus to symphisis pubis, and another from same point to ant. super. spinous process of the ilium. Muscles and fascia traversalis next divided; intestines adherent in left iliac fossa, by firm bands of lymph, the result of inflammation. The intestines being drawn up the fascia iliaca was exposed, covering the iliacus internus muscle; ureter was observed crossing the anterior surface of the common iliac artery, just at its bifurcation. The aneurismal tumor which was soft and fluctuating to the touch, measured five inches by two and a half behind, and to its outer side lay the anterior crural nerve, flattened and expanded. The abdominal aorta was exposed as high as the origin of the inferior mesenteric branch; it presented a normal appearance as regards size; an inch above its bifurcation into the common iliacs, a calcareous deposit, about the size of a four-penny piece, was seen protruding through the coats of the artery; it occupied the right side of the vessel.

The left common iliac artery (that on which the ligature was applied) was much smaller than the corresponding artery of the other side; there was a fibrinous clot in it just below its origin from the aorta—the vessel was severed by the ligature, half an inch above the bifurcation into the internal and external iliacs. On passing a probe through the internal into the common iliac, it was stopped by the adhesion of the vessel at the distal side of the ligature. The same occurred on passing a probe through the aorta into the common iliac. The common iliac vein was closely adherent to its artery, and the external vein was pressed on by its artery. Femoral artery and vein healthy, and of natural size. Iliac fossa unusually dense, and closely bound to the vessels; a large oval lymphatic gland occupied the left side of the common iliac artery, which was seen during the operation of a bluish color. The pelvic cavity was filled with unhealthy pus; the pelvic bones sound and not indented by the tumor. Internal epigastric artery slightly enlarged. A probe passed through it into the aneurismal sac touched a soft fibrinous clot. Walls of sac thin.

The aneurism was egg-shaped, the larger end downward, and a little inward, measuring five inches in length, three and three quarters in depth and extended from about one inch from the origin of the external iliac artery, *which was enlarged* to within one and a half inches of the profunda covering the external iliac vein for about two inches of its course externally and posteriorly. The tumor, on being laid open for the entire of its exent, contained at its two superior thirds a very soft greyish fibrinous clot, but not distending it; in the inferior third was a soft black blood deposit, scarcely to be considered a coagluum being so friable. The aneurism communicated with the external iliac vein by a well defined oval opening of about one quarter of an inch in diameter, situated a little below the middle of the tumor on its internal and posterior aspect. The epigastric slightly enlarged, could be traced backward to the same opening, the arterio-venous on the internal and posterior opening of the aneurism, *and seemed to form prior to its communication with the aneurism, a small cavity, capable of containing a bean which was filled with fluid blood.*

This examination shows the case to have been one of aneurismal varix (or arterio-venous aneurism), in this case being a spontaneous formation (in contradistinction to the traumatic variety), which has been recorded by BRANSBY COOPER, PERRY, and Prof. PORTER, affecting the femoral vessels, being a primitive disease, the result of thinning of their coats. This rare variety was surmised early in February, for combined with a well-marked *bruit de sonfflet*, there was also a most remarkable vibratory thrill, which was occasionally so loud and strong as to mark the proper aneurismal bruit. This surmise was fully confirmed by the examination, which presented, as described, a well-marked complication of the direct communication between the vein and artery, and still more complicated by the direct entrance of the epigrastic artery into the inferior part of the aneurism. L.

Nitrate of Silver and Sulphate of Copper in Conjunctivitis.

The *Boston Med. Surg. Jour.* (July 27), contains a very valuable and interesting paper on the above subject by Dr. LORING. All our readers have observed that each of the named applications has its own defenders, and we are pleased to see so careful an investigator as Dr. L. present his views to the profession. In summing up the article referred to, the author says:

"The result of my own observation has been that each of the remedies has its peculiar virtues, dependent on its peculiar chemical and physiological action, which render them applicable to different diseases, or different degrees of the same disease, and that the nitrate of silver is superior to the sulphate of copper:

1. In acute catarrh, in purulent and gonorrhœal conjunctivitis and that of new-born children, when the first violence of the inflammation has passed, when there is much hypertrophy of the papillæ and surrounding tissue, and much

swelling of the lids, accompanied by an abundant purulent discharge.

2. When an acute attack of purulent or gonorrhœal ophthalmia has passed, leaving behind it a general relaxation, with much hypetrophy of the tissues, and when the epithelial layer is much thickened. The nitrate is useful here as elsewhere in removing the morbid collections and in giving tone to the vessels and tissues, though it should not be repeated often.

3. In acute granular conjunctivitis, where the granulations acting, on account of their size, as a foreign body, have occasioned a general conjunctivitis, with hypertrophy of the papillæ, accompanied with swelling of the lids and some discharge. Here it should be discontinued as soon as the acute symptoms have passed.

4. In diptheritic conjunctivitis but *very* rarely, and only when the vascularity of the part has been re-established, when the epithelial layer is unhealthy, and where nature is evidently laboring to throw off the morbid exudations in the tissues.

The sulphate of copper is superior to the nitrate of silver:

1. In acute conjunctivitis, where the secretion is scanty and where there is but little hypertrophy of the papillæ and the cellular tissue, and but little alteration of the epithelial layer.

2. When acute conjunctivitis becomes chronic—a condition where the nitrate may be occasionally used in combination with it.

3. In chronic granular conjunctivitis, especially in trachoma when the mucous membrane seems to be deficient and the epithelial layer thin, and when a tendency to cicatrization of the tissue exists. Here, also, the nitrate may be used occasionally, whenever the epithelial layer is increased in thickness and the granulations appear large and florid.

4. In a relaxed condition of the conjunctiva or subconjunctival tissue from whatever cause, where moderate but continued stimulation is required.

Among the varieties of conjunctivitis for the treatment of which both of the above remedies would appear contra indicated, may be mentioned the following:

1. In simple hyperæmia of the conjunctiva, and in simple catarrhal conjunctivitis, where milder astringents are more advantageous.

2. In the latter stages of purulent or gonorrhœal conjunctivitis, when the circulation has been so much interfered with that stasis is liable to occur—a condition in which all astringents are extremely injurious.

As different diseases of the same class must necessarily run into each other, and as no distinct line can be drawn between different phases or degrees of the same disease, no absolute rule for the use of either of the above remedies can be laid down; still, I cannot help thinking that the above classification represents, in a general way, the cases to which the virtues of each remedy are applicable, and that their peculiar therapeutical merits will be found to depend on their respective chemical and physiological properties.

Treatment of Chronic Diarrhœa.

In the *Chicago Medical Journal* for August, Dr. G. D. Winch, Surgeon 42d Wis. Vols., has an article on chronic diarrhœa, from which we make a few extracts regarding the treatment, which we can, from experience, heartily endorse.

The disease calls for a steady and persistent course of treatment. Remedies should not be abandoned, because of not relieving symptoms in a short time. If he has been exposed to malarial influence, remove the patient to a salubrious locality. In the scorbutic taint, the persistent course of vegetable diet with lemonade and citric acid, is to be commenced at once. Oranges and baked apples are excellent. Animal diet is necessary to keep the vital powers above the point where the reparable process fails. Beef tea and essence, and chicken soup, most common and useful. Rice a good adjunct. Milk must not be neglected, it is of great utility in small quantities often, where there is not much desire for food. *Never* continue an article of diet when it produces nausea and vomiting. Mutton chops and soft boiled eggs should be tried, and, if not producing indigestion or irritating the bowels, should be continued.

As regards remedies, it is only by a judicious use of tonics, chalybeate astringents, opiates, and alcoholic stimulants, that benefit can be received. Opiates should be given to quiet pain, when there is tormina, in half-grain doses until the pains cease; or, in cases of sleeplessness, in grain doses at bedtime. *Tr. ferri chlor.*, in doses of 10 to 15 drops every three hours, is often well borne and very useful, in connection with opiates, when they are necessary, or alcoholic stimulants, if there is prostration. If any tendency to periodic exacerbations, quinia is to be used. Mineral acids are useful, especially in the scorbutic variety. Give arom. sulph. acid, 10 to 15 drops, three times daily. If there is hepatic derangement, the nitro-muriatic acid is more desirable. Tannin, catechu, etc., are of no utility, on the contrary injurious, by irritating the stomach and producing hepatic congestion.

Alcoholic stimulants to be given under the same circumstances as would indicate their use in other diseases. They should not be given recklessly, but where the system is becoming prostrated, prescribe a certain amount, watch the patient and vary the quantity according to its necessity and effect. *Never* leave this part to the judgment of the nurse.

Of injections, the author prefers, cupri sulph., gr. iv., tr. opii, m. xx., pulv. acaciæ, ʒss., aquæ, f.ʒiv., used morning and evening.

A Parisian editor recently asked Dr. Ricord, the eminent medical practitioner and writer, to publish his memoirs in the former's newspaper. The Doctor replied: "My memoirs? Why I never thought of such a thing! Shall I call them 'The Speculum applied to the XIXth century!'"

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SEPTEMBER 23, 1865.

MEDICAL SCHOOLS.

In a number of medical colleges, throughout the United States, the preparatory fall-courses of lectures have already commenced, and in a few weeks more the regular annual sessions will begin.

From the announcements of most of the medical schools, it is apparent that their faculties are fully aware and conscious of the great trust placed in them, and the importance of the work in which they are engaged—that of teaching the facts and principles of a science, upon which depend the lives and health of millions, and the sanitary welfare of a nation.

It is gratifying to notice that in many instances, during the last few years, the faculties of our colleges have been strengthened by the addition of more teachers, both of professors and adjuncts, which gives an opportunity to add new branches of study to the curriculum—or at least to teach more extendedly and with greater hope of success, such branches as had formerly been neglected. The names upon these announcements, present an array of well-known talent, scientific research, professional worth and eminence, that leave nothing to desire, and compare favorably, we venture to say, with the corps professorial of any country.

But, while the corps of teachers of the various schools has generally been reinforced, and new branches have been added to the course of instruction, we observe that there has been *no* decided extension of the regular period of instruction. This, however, *nemine contradicente*, is the great point for reform in our schools.

The difficulty has always been, not so much the lack of teachers, or the limited scope of the instruction, as the impossibility to go through more than the main facts and principles of the main branches of our science, in so short a space as six months. This, we believe, is the highest period through which the regular course of any of our colleges extends. And if, under these circumstances, one teacher succeeds in imparting to his pupils a pretty clear and full knowledge of his particular branch, it is generally done at the expense of some other branch, which may not present the same interest to the pupil. The main fact we know to be true, and every teacher and student will agree with us, that the time of the latter, during a regular winter course, is disproportionately taken up by lectures, and that, after spending some hours daily in practical anatomical pursuits, etc., there is very little time left him for real study.

With the increase in the number of professors, and the addition of new branches, we would like to see an extension of the time of these regular annual courses of instruction. Both should go hand in hand. Common sense, among a large number of students who can afford it, time being of no pressing importance to them, has taught them to remedy the evil, by attending three, instead of the prescribed two courses, which enabled them to study with more leisure, and to greater advantage.

This is what we should advise every student to do. If at all possible, attend three courses of lectures. During the first course, pay particular attention to anatomy, chemistry, materia medica, and physiology. Master these branches perfectly, they form the corner-stones of medical science. The second year, throw yourself with all your energy upon general and special pathology, surgery, and midwifery, paying attention to the other branches only sufficient to retain what has already been learned. The third course you can hear every branch with both pleasure and profit; take no notes, however, of didactic lectures, but let your main business be to study and write up clinical and hospital cases, and be a *fixture* at all college and hospital clinics.

A plan more or less similar to the above, at any rate, distributing the study of medicine over a larger space of time, has for years been and is yet followed by many students, and the necessity of some general action among the faculties of our medical schools, tending to the same end, will, we have no doubt, make itself felt more strongly every year. There can certainly be no impropriety in our calling the attention of the profession to the fact that an increase in the number of teachers, and addition to the branches to be taught, demand an extension of the period of instruction. It has long been admitted, generally, that it is, under any circumstances, too short.

PUBLIC HYGIENE.

Our late exchanges from Great Britain are full of the accounts of meetings and conferences, all held for the one specific purpose of advancing the state of public hygiene, in view of the threatened approach of cholera, or other epidemics. One of these conferences was presided over by the Episcopal Bishop of London, a fact, which we mention only to show that the movement is a general one, and sustained by those high in authority.

In our own country, the spread of the Eastern epidemic has been recorded in the daily and weekly papers with care, and the anticipated probability of its leaping across the Atlantic has given rise to considerable fear. That we will remain exempt from the disease, in its regular march from East to West, contrary to all the experience of the past, none will expect or believe. But that an infinite amount of good can be done by timely precautionary measures, that the disease can be rendered milder in its form, and less severe in its ravages, by an energetic abatement of all nuisances which tend to deprave the air of our cities, our streets, our churches, schools, halls and theatres, houses and huts, all will admit, who have in former years observed and studied the tendency of the scourge to fasten itself with the greatest virulence upon just those localities, which were characterized by a total neglect of all hygienic rules and laws, and where accumulated filth contaminated the air we breathe with concentrated foulness.

Whether cholera is again to invade our shores or not, even the ordinary mortality of all our large cities could be rendered much lower, if it were in the power or will of municipal authorities to introduce and enforce a system of public inspection, in conjunction with strong and comprehensive laws for the abatement of nuisances. But of what help are all inspections and laws, if those to whom they are entrusted are neglectful or ignorant of their duties, and as long as these offices remain in the hands of unscrupulous politicians.

Let us take, for an instance, the largest city on this continent, our great commercial metropolis, New York. Naturally enjoying the best advantages of being made a perfectly clean and healthy city, underlaid by a splendid soil, having unequalled natural facilities for drainage, plenty of good and wholesome water, and the sea wafting, morning and evening, her healthy and invigorating breezes over the whole island, yet one of the oldest cities in the Union, one of the wealthiest and the most cosmopolitan in the world, she boasts of the highest rate of mortality of any city in the Union, as she is one of the *dirtiest*.

The official statistics of her authorities have repeatedly settled this question of the unfavorable rate of her mortality. In regard to the filthy condition of her streets, that is a matter which, if we do not believe the occasional outbursts of honest indignation to which her editors give vent, we can verify by a short walk, and that even not through the worst parts of the city. There can hardly be anything worse in the shape of filthy streets in Constantinople, than we find to exist in the lower part of New York, around the wharves, in the neighborhood of Washington Market, which, hygienically, constitutes one of the biggest nuisances of the city. In the morning, before the sun and the breezes have had time to somewhat disinfect the foul odors of decomposing vegetation and animal matter, which are allowed to accumulate there, in the streets and upon the docks, to the depth frequently of half a foot and more, there is such an indescribably disgusting sickening odor, hanging like a thick cloud over the streets and penetrating into every house, that one can hardly conceive how an enlightened community, such as New York claims to be, can for a moment rest contented, until these nuisances are abated.

If the mere outward appearance of a city is thus filthy, what must be expected of the inward filth, the uncleanliness, the want of pure air, the poisoned atmosphere of houses in those crowded parts of the city, where sunshine can hardly penetrate, and proper ventilation is next to impossible? The published reports of able sanitarians have repeatedly given us the results of their investigations, and every one who feels interested in the subject, is already fully conversant with the truly terrible state of these underground populations, and of the lower classes of tenement-houses. We need not dwell on the subject.

But, the remedy? That is the question. Nothing less than a *thorough system of inspection*, not only of streets, but of houses and yards, in every suspected neighborhood, and the abatement of all nuisances which may endanger the health of the community, will be successful in diminishing the rate of mortality of our larger cities, and counteract the apprehended dangers from severe epidemics of any kind. One great obstacle in the way of such an efficient system, is the democratic form of our government. People do not like to be inspected and policed over. But, withal, there is no harm, as far as the principles of self-government and individual liberty are concerned, in the *people* trying to protect *themselves* against those who, by neglect or ignorance, would make themselves and their dwellings sources of disease and pestilence to others.

THE PRITCHARD POISONING.

We print, herewith, a criticism on some editorial remarks we recently made upon professional etiquette, as connected with the Pritchard poisoning case. We have only to say that our remarks were predicated upon the case as we found it reported in one of the ablest and most critical literary journals of the country. If the

case was there reported incorrectly, as our correspondent claims, of course, our deductions and strictures are alike baseless.

We would be the last to animadvert upon professional etiquette as it is understood and practised by all high-minded physicians. Indeed, it has been one of the leading designs of this journal to foster and encourage a more faithful attention to those necessary rules and amenities of the profession which every well-educated and gentlemanly practitioner feels it his pleasure, as well as duty, to conform to, as much for his patient's welfare as for his own comfort and well-being. But professional etiquette has its proper limits. It is not within its province to aid the poisoner or the assassin in the commission of his crime, and it was upon a reputed attempt so to pervert it that we commented.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

The first of the series of *conversational* meetings for the season, of this active society, was held on the evening of the 13th inst., at the hall of the College of Physicians. It was largely attended, although the heat was oppressive—the thermometer being in the neighborhood of 70°, with scarcely a breath of air stirring. The paper read by Dr. CONDIE was a complete and faithful portraiture of Typhus Fever, as it has been witnessed at different periods in this city, both in its sporadic and epidemic forms. It elicited a spirited debate, in which a large number of gentlemen participated.

The second of these conversational meetings will be held on the second Wednesday evening, the 13th of October next. *Asiatic Cholera* has been selected for discussion, and a gentleman of known ability and practical experience chosen to introduce it. As there is at this time considerable anxiety in the public mind in regard to the probable appearance of this disease in our midst, it seems to us that the selection of this subject for investigation is highly opportune, and the fact that the profession are thus timely moving in the matter, ought to reassure the community that nothing will be left undone by the profession, collectively and individually, that science, skill, and experience can effect, to stay the ravages of that terrible scourge.

Pension Examining Surgeons.

The following have lately been appointed:—

Rhode Island.—William Akie of Newport.

New York.—R. L. Hovey of Rochester.

Notes and Comments.

Cure for the Cholera.

A St. Petersburg doctor, we infer from a statement of the *British Medical Journal*, has effectually made an ass of the English embassy at St. Petersburg. He had long been awaiting an opportunity to exhibit the wonderful efficacy of an infallible cure for cholera. At the outbreak of the epidemic at Alexandria, he applied to the French embassy, where they were sufficiently smart to give no satisfactory response. He then applies to Mr. LUMLEY, the English ambassador, who sends it to Lord RUSSELL, and Lord RUSSELL refers it to the College of Physicians. "The cure consists in the administration of a powerful snuff. If the patient's Schneiderian membrane responds, and eight or ten sneezes can be got out of him, he is safe, and saved; but if the snuff (which is powdered hellebore) produce no effect, the patient must die. No sneeze, no cure! It is this remedy which the philanthropic doctor earnestly hopes Lord RUSSELL will send on at once to Alexandria, and of which Lord RUSSELL transmits notice to the College. We recommend the notion to some of our *Yankee cousins, who have already done a great business in hellebore and veratria.*"

Beg your pardon, gentlemen! The point of the joke is not visible here. We have done some business in veratria, establishing beyond cavil its powerful and good effects in a number of diseases, but we must respectfully decline the honor of this kind reference until you find some American ambassador sufficiently verdant to allow himself to be duped by a foreign quack, and communicate his verdancy through official channels.

Correspondence.

DOMESTIC.

Professional Etiquette and the Pritchard Poisoning Case.

EDITOR MED. AND SURGICAL REPORTER:

In your editorial remarks in the Pritchard poisoning case, I think you are wrong, either from want of consideration, or from not having seen the testimony. It seems to have occurred to you that such was the case when you wrote the closing paragraph.

I have not the full testimony at hand, so can only give it in substance. Dr. PRITCHARD was a physician of regular standing, and of untarnished reputation, among physicians and in society.

His wife is sick, and he calls Dr. Patterson in consultation. Dr. Pritchard tells him the treatment he is pursuing: he is giving antimony. Dr. Patterson tells him he thinks such a course detrimental to the patient. A second time he is called in counsel, and finds the patient still taking antimonials. Again he dissents from the treatment, and expresses himself strongly against it.

In neither interview has he any reason to suspect the medicine administered with any wrong intent. There is nothing to show that Dr. Patterson had any suspicions of foul play, or anything wrong beyond an error of judgment. The fact of calling counsel was an evidence of solicitude on the part of his neighbor, who was a physician, and the patient, his wife. The only course, in common civility, let alone professional courtesy, was to express a friendly dissent from the treatment pursued. There was nothing to show that he had any right, beyond friendly expostulation.

When suspicions were painfully aroused, and a train of evidence brought in, showing base criminality, Dr. Patterson sees at once the part he had performed, and that what he saw were so many links in the now completed chain of crime. If he had known this before, would any "professional etiquette" have hindered him from interfering, when, by not doing so, he became *particeps criminis?*

The remarkable expression that is going the rounds of the press, to the very great obloquy of an honest man, and of the profession, had qualification enough in court to render it harmless, and it should be very far from a medical journal to give currency to so baseless a charge. Dr. Patterson is innocently called in consultation, he dissents from the treatment, he so expresses himself. The common courtesies among gentlemen, as well as *professional etiquette, prevents any* (further) *interference in the case.*

Yours truly,

P. J. Farnsworth.

Clinton, Iowa, Sept. 1865.

News and Miscellany.

Action in Philadelphia in Respect to Cholera.

BOARD OF HEALTH.

Report of the Sanitary Committee of the Board of Health on the Subject of Cholera, as presented to and adopted by said Board, September 13, 1865.—The Sanitary Committee, to whom was referred a preamble and resolution passed by the Board September 4th, bearing directly upon the present sanitary condition of our city, in view of the steady approach of cholera toward this western hemisphere, and the proper steps, if any, that may be required to prevent its appearance and spread in our midst, beg leave to report the following:

In view of the present excitement regarding the prevalence of cholera in various places on the continent of Europe, its rumored appearance in England, and the well-grounded apprehension, based upon its former history and progress, that at no distant period it may again visit this country, the Board of Health have not been unmindful that due provision should be made in season, having for its object either to avert the disease altogether or mitigate its severity, should it appear in our city.

To this end they claim the early and zealous attention of the Mayor and Councils to the rigid enforcement of all existing sanitary ordinances, together with their hearty and cheerful co-operation with this Board in the adoption and carrying out of such hygienic appliances as, in a sanitary point of view, may place our city in a condition most favorable to resist the scourge, if it should appear, believing that, at all times, "prevention is better than cure," and that to be forewarned is to be forearmed at the approach of an enemy.

The present, therefore, is the time when wholesome sanitary regulations, properly directed, may change the future of our city, should cholera visit us.

It becomes us, therefore, as the guardians of the public health, not only to weigh well and reflect carefully upon our responsibility in this matter, but without delay, and by an active and thorough interposition, institute such a system of sanitary and medical police as shall be adequately adapted to meet any and every emergency with which we may be threatened or called upon in the providence of God to meet.

It is neither important, nor is it expedient, at this stage of our proceedings, as a Board of Health, that we should indulge in any observations, or enter into any detailed inquiry as to the origin and progress of cholera, whether it be of domestic origin, or introduced from abroad—whether it is derived from an atmospheric or malarious poison—whether contagious or infectious. These questions having been fully if not satisfactorily discussed elsewhere, it is sufficient for our purpose that we familiarize ourselves with the fact that large and densely populated cities, on the border of rivers, are favorite resorts for cholera, and that the power of the disease is increased in proportion to the degree of insalubrity arising from the influence of locality, and the existing sanitary condition of its several districts.

In possession of this information, we consider it our first duty to be prepared to meet the epidemic should it approach our shores. If we procrastinate and delay action until the outbreak of the disease, or until the atmosphere has become infected with the cholera poison, we might be held responsible for a culpable neglect of the faithful discharge of a sworn trust committed to us as guardians of the public health.

While the Board have all confidence in their own ability and resources, aided by legal enactments, to perform the duty incumbent upon them at this crisis, they feel that the co-operation of the Mayor and Councils is desirable in order to

inspire confidence in the community, and give greater weight to any precursory measures for the preservation and protection of the health and lives of the citizens from the impending epidemic.

Entertaining these views, and relying upon the assurance that they will meet with popular favor, the Board would adopt the following resolutions:

1. *Resolved*, That in the opinion of this Board the time has arrived for the adoption and enforcement of strict sanitary police regulations, in anticipation of the advent of cholera at an early or more remote period.

2. *Resolved*, That — district agents be appointed by this Board, who shall be under the direction of the district committees, to act as assistant messengers until otherwise ordered; their salaries to be the same as the messengers of the Board.

3. *Resolved*, That the duty of the district agents shall be to visit and inspect carefully every house, cellar, yard, stable, factory, work-shop, shed, manure-heap, privy, water-closet, drain, street, sewer, gutter, alley, court, vacant lot, burying-ground, vault, slaughter-house, rag and bone shop, dock, and furnish the number of underground tenements, with their population, within their several districts, and also other places wherever there may be suspicion of existing filth or accumulation of material liable to act as food for the poison of an epidemic, and report each week to the Board, through the district committees, in books provided for the purpose.

4. *Resolved*, That the citizens be earnestly advised and required, as an essential sanitary domiciliary defence against the inroads of cholera, to keep their houses, cellars, workshops, factories, stores and storehouses clean; to whitewash their cellars, fences, outhouses, and other places where it can be done; to avoid the accumulations of rubbish of every description in their houses, cellars and yards; and direct their efforts to establish free ventilation about all their premises, as among the best known means of adverting, lessening and destroying the poison of cholera.

5. *Resolved*, That the Mayor and the Health Committee of Councils be invited to meet the sanitary committee of this Board for a free conference, as regards the best means to facilitate the carrying out effectually the above plan of house-to-house visitation, and for the suggestion of other suitable measures for proper enforcement of personal and public cleanliness, before the epidemic shall make its appearance among us.

6. *Resolved*, That Councils be requested to make a special appropriation of $20,000, to enable the Board to put in operation, without embarrassment, the above system of sanitary police regulations.

All of which is respectfully submitted.

WILSON JEWELL, *Chairman.*
JACOB B. COATES,
PETER ARMBRUSTER,
E. WARD,
Sanitary Committee.

BOARD OF SCHOOL CONTROLLERS.

At a late meeting of the Board of School Controllers of this city a communication was received from the president of the Board admonishing the members of the existence of the cholera in the eastern hemisphere, and of its probable westward march. It suggests cleanliness in the school buildings, and adds that though this Board has from time to time called upon public authorities to furnish ample school accommodations, and though they are blameless, yet they will merit censure if they do not use such preventives from disease as may be at hand. Many of our schools are shamefully neglected by the janitors, that a very large proportion of them have no fit ventilation—that we must occupy these buildings as school (or store) houses for our children a year or two longer, even if City Councils should give *promptly* the lots on which to erect new buildings, with the funds already appropriated for building purposes.

To a large degree, by timely prudence and forethought, the spread of the cholera may be mitigated by causing our school cellars to be cleansed, and by ample use of lime, providing for better ventilation, and generally by adopting such counsel as the health officers and medical gentlemen may suggest.

The communication recommends that each sectional Board be requested to make, or cause to be made, at as early a day as practicable, a complete, careful survey of each and every building and yard occupied or used for school purposes, and to report to this Board as soon as possible (not later than the next stated meeting), the sanitary condition of each, giving all needful information which will aid this Board in future measures which it may adopt, to guard against the pestilence now so fatal in Europe. Also, that such reports be at once referred to the Committee on Property, with instructions to report promptly to this Board what steps, in their judgment, may be desirable.

On motion, the recommendations embraced in the communication were unanimously adopted.

Resignation.

We learn that Dr. WM. MAYBURRY has resigned as Attending Physician at the Hospital of the Protestant Episcopal Church in this city, a position which he held for a number of years, and the duties of which he discharged faithfully and most acceptably.

Medical Department of the Army.

Major-General D. E. SICKLES, in an address delivered on the 13th inst., at the opening of the fair of the American Institute, at New York, alluded as follows to the medical department of the army. It will be remembered that the General has experienced in his own person the care of the army medical department, having had a leg amputated at Gettysburg.

"I can do no more than glance at the improvements of the medical department of the army; indeed I can only speak of any of the great staff department so far as their operations passed under my own observation. The construction and organization of general hospitals, the ample arrangement for field hospitals, the liberal and various supplies for hospitals, the unstinted and judicious expenditures for scientific appliances,

improved ambulances, hospital wagons—which are portable apothecary shops—hospital cars, adapted expressly with spring-beds to carry the sick and wounded of the army over railroads; the humane use of chloroform; the liberal supply of stimulants; the extensive issue of quinine, one of the most expensive medicines as a preventive—these are among the noticeable features of our improved administration of the medical service in the army."

MARRIED.

Carmalt—Churchill.—On Thursday, Sept. 7, at Calvary Church, Utica, N. Y., by the Rev. A. B. Goodrich, James E. Carmalt, of Susquehanna co., Pa., and Charlotte J., daughter of Dr. A. Churchill, of Utica.

Cornell—Overton.—At 2 P. M., Tuesday, Sept. 12, at the residence of the bride's mother, by Rev. Dr. Brown, of Brooklyn, George B. Cornell, M. D., and Millie Josephine Overton, both of this city.

Baily—Broom.—In Wilmington, Del., on the 12th inst., by the Rev. George F. Wiswell, E. J. Baily, M.D., Surgeon U. S. Army, and S. Cornelia, daughter of the late Hon. Jacob Broom, of Philadelphia.

Hosford—Gay.—In Boston, on Monday, Sept. 11, by the Rev. E. B. Webb, D. D., Charles Hosford. M.D., of Thompson, Conn., and Miss Helen E. Gay, of Boston.

Howard—Smith.—At North Attleboro, Mass., Sept. 5, by Rev. S. Babcock, of Dedham, G. C. Howard, M.D, of Middlebury, Vt., and Georgia W. Smith, of N. A.

Kerlin—Dix.—In Groton, Mass., at the residence of the bride's father, on the 7th inst., by Rev. C. Nightingale, Dr. I. N. Kerlin, of Media, Pa., Superintendent of Penn'a Training School for Feeble-Minded Children, and Harriet Caroline, daughter of Benjamin P. Dix, Esq.

McElhone—O'Hanlon.—On Wednesday, Sept. 13, by Rev. C. Farrell, John J. McElhone, of Philadelphia, and Mary Matilda, youngest daughter of Dr. Philip O'Hanlon, of New York city.

Neel—Woolston.—On Tuesday, 12th inst., at the residence of the bride's father, by the Rev. Jefferson Lewis, William H. R. Neel, of Philadelphia, and Mary D., daughter of Dr. Samuel Woolston, of Vincentown, N. J.

Patterson—Cox.—On Thurday, Sept. 14, at Grace Church, Orange, N.J., by Rev. A. C. Coxe, D.D., assisted by Rev. James Bush, Rector, Edward Patterson, of New York, and Isabel Liddon, daughter of the late Dr. Ab'm Liddon Cox, Surgeon U. S. V.

Phillips—Cutler.—In Brooklyn, on Wednesday, Sept. 13, by Rev. F. Marion McAllister, assisted by Rev. Lawrence H. Mills, Dr. H. J. Phillips, of New York, and Frances Caroline, daughter of F. M. Cutler, Esq., of Avon.

Rollin—Chesnut.—At the residence of the bride's father, Dr. Thomas Chesnut, by the Rev. J. W. T. McMullen, Mr. J. B. Rollin, of Indianapolis, and Miss Ella Chesnut, of Lafayette, Ind.

Stees—Friend.—In St. Paul, Minn., on the 29th of August, 1865, by the Rev. Dr. Brooks, Clinton G. Stees, M. D., late Surgeon of the Army of the Northwest, and Miss Virginia Friend, of St. Paul, Minn.

Taylor—Coryell.—On Tuesday, the 12th inst., at Lambertville, N. J., by the Rev. E. Johnson, Dr. Richard G. Taylor, of Philadelphia, late Surgeon of the Thirty-fifth New Jersey Volunteers, and Jennie, daughter of Alexander Coryell, Esq., of Lambertville.

DIED.

Durney.—On Sunday, 10th inst., at his residence Talbot county, Md., Dr. Robert A. Durney, formerly of Philadelphia, son of John and Ann Maria Durney, in the 38th year of his age.

Ewing.—At Newtown, on Wednesday evening, the 13th instant, Catharine Otto, widow of the late Dr. S. S. Ewing, in the ninety-third year of her age.

Hibbard.—On Monday, September 11, at South Lee, Mass., David R. Hibbard, M. D., of Union, N. J., aged 57 years.

Tomlinson.—Suddenly, in Nashville, Tenn., Sept. 7th, 1865, Dr. Thomas P. Tomlinson, (of Bristol, Bucks co., Pa.,) Assistant-Surgeon of the 78th Pennsylvania Veteran Volunteers.

Terry.—At Baton Rouge, La., Aug. 23, of inflammation of the brain, Act'g Ass't Surgeon Charles E. Terry, U. S. A.

ANSWERS TO CORRESPONDENTS.

Dr. E. R., Niles, Mich.—Turnbull on Defective Vision, and on Deafness, sent by mail, Sept. 16th.

Dr. C. J. N., Lima, O.—Gross' instrument for removing foreign bodies from the ear, sent by mail, Sept. 13th.

Dr. J. H. K., Worcester, Pa.—Pereira's Pocket Prescription Book, sent by mail, Sept. 16th.

Dr. G. W. G., Kintnerville, Pa.—Polypus forceps, sent by mail, Sept. 13th.

Dr. W. M. L., Salem, O.—Pocket-case of instruments, sent by Express, Sept. 14th.

Dr. J. M. S., Saddle River, N. J.—Slade on Diphtheria, sent by mail, Sept. 16th.

Dr. P. J. R., Derry Church, Pa,—1 oz. silver wire, sent by mail, Sept. 16th.

American Medical Association.

In consequence of the expense of the publication of Vol. XVI. (1865) of the Transactions, the Committee of Publication have fixed the price at five dollars ($5). Members who have already paid three dollars ($3), are requested immediately to forward the additional sum, ($2.) As the number of copies published will be but slightly in excess of the number of subscriptions, those who desire copies should immediately forward the amount either to the Treasurer, Dr. C. Wister, 1303 Arch street, or to

Wm. B. Atkinson, Permanent Secretary.
215 Spruce st, Philadelphia.

Sept. 18, 1865.

METEOROLOGY.

September	11,	12,	13,	14,	15,	16,	17.
Wind	S. W.	S. W.	S.	S. E.	N. W.	S. W.	W.
Weather	Clear.	Clear.	Clear, Sho'y.	Cl'dy, Sho'y.	Clear.	Clear.	Clear.
Depth Rain				1 in.			
Thermometer.							
Minimum	66°	68°	66°	70°	71°	59°	59°
At 8 A. M.	75	79	75	79	79	67	68
At 12 M.	77	83	79	84	83	75	77
At 3 P. M.	79	85	78	84	84	76	78
Mean	74 25	78.75	74.50	79.25	79.25	69.25	70.50
Barometer.							
At 12 M.	30.2	30.2	30 4	30.2	30 2	30.3	30.2

Germantown, Pa. B. J. Leedom.

WANTED.

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☞ *We are in pressing need just now of a few copies for new subscribers, of No. 414, Feb. 4, 1865.*